

In the Claims:

1. (Original) A method of initiating a media call over a packet-switched network comprising:-
 - (a) issuing a call set-up request at a first terminal having an address in a first address range, the call set-up request being destined for a second terminal in a separate network having an address in a second address range which overlaps with the first address range,
 - (b) passing the call set-up request to a first call server communicatively coupled to the first address range,
 - (c) passing the call set-up request from the first call server to a second call server communicatively coupled to the second address range,
 - (d) causing the call servers to negotiate a port at each respective addresses of the terminals for subsequent communication once the call is set-up,
 - (e) providing a first address translator having a first range address in the first address range,
 - (f) providing a second address translator having a second range address in the second address range,
 - (g) causing the first call server to provide the first terminal with the first range address of the first address translator as its destination address for the call,
 - (h) causing the second call server to provide the second terminal with the second range address of the second address translator as its destination address for the call,
 - (i) arranging for the first address translator to pass data received at the first range address from the first terminal at the negotiated port to the second address translator for onward communication to the address of the second terminal at the negotiated port, and
 - (j) arranging for the second address translator to pass data received at the second range address from the second terminal at the negotiated port to the first address translator for onward communication to the address of the first terminal at the negotiated port,

whereby two-way communication is established between the first and second terminals via the first and second address translators.

2. (Original) A method according to claim 1, wherein the first and second address translators are integrated in a single device having external addresses in the first and second address ranges.
3. (Original) A method according to claim 1, wherein the first and second address translators each have a third range address in a third address range which is common between the address translators, wherein the respective third range address of the second address translator is provided to the first address translator by at least one of the call servers and vice versa, and wherein data passed between the address translators is passed via their respective third range addresses.
4. (Original) A method according to claim 1, wherein the call servers each have a fourth range address in a fourth address range which is common between the call servers.
5. (Original) A method according to claim 1, wherein the first and second address ranges are IANA reserved private IP address ranges as defined in RFC 1918.
6. (Currently amended) A call server in a first packet-switched network for setting up VoIP calls from an originating terminal in the first network having an address in a first address range to a destination terminal in a second packet-switched network having an address in a second address range, the second address range overlapping with the first address range, the first call server comprising:-
 - (a) a terminal controller arranged to receive a call set-up request from [[an]] the originating terminal in the first network and provide the originating terminal with an first range address of an address translator in the first network as its destination address for the call, the first range address

- being in the first address range and the call set-up request being destined for the destination terminal; [[and]]
- (b) an address translator controller arranged to provide to the address translator, the IP address of the originating terminal in the first network as derived from a call set-up request received by the terminal controller;
 - (c) an output adapted to pass the call set-up request to a second call server in a second network, the second call server being communicatively coupled to the second address range;
 - (d) means adapted to negotiate a port at the first address of the originating terminal for subsequent communication once the call is set up;
thereby establishing two-way communication between the originating terminal and the destination terminal via the first address translator and a second address translator.
7. (Previously presented) A call server according to claim 6 including intra-server communication means arranged to communicate with another call server to obtain an IP address and port for a destination terminal which is under the control of the other call server and wherein the address translator controller is further arranged to provide the IP address and port of the destination terminal to an address translator.
8. (Previously presented) A call server according to claim 6 including intra-server communication means arranged to communicate with another call server to obtain an IP address for a first address translator which is in communication with a destination terminal under the control of the other call server and wherein the address translator controller is further arranged to provide the IP address of a second address translator which is in communication with the originating terminal to the said first address translator and vice versa.
9. An address translator in a first network, the first network including a first terminal having an address in a first address range and a first call server communicatively coupled to the first address range, the address translator

having a first range address in the first address range, the address translator comprising:-

- (a) a terminal port for communicating with ~~a~~ the first terminal in the first network,
- (b) a translator port for communicating with another address translator in a second network having a second range address in a second address range, the second address range overlapping with the first address range and
- (c) a control port for communicating with ~~[[a-]]~~ the first call server, the first call server being adapted to provide the first terminal with the first range address of the first address translator as its destination address for the call and negotiate a port at the first address of the terminal for subsequent communication once a call is set-up;

wherein when the address translator receives a message at the first range address addressed to it from the first terminal at the negotiated port, the address translator replaces its address with an the second range address of for the another address translator at the negotiated port;
whereby two-way communication is established between the first and second terminals via the first and second address translators.

- 10. (Currently amended) An address translator according to claim ~~[[8]]~~9, including a controller arranged to receive at the control port, information relating to an IP address of another address translator which is reachable via the translator port and corresponding information relating to an IP address of an originating terminal and to pass data received at the terminal port from the originating terminal to the corresponding address translator via the translator port.
- 11. (Cancelled)
- 12. (Cancelled)
- 13. (Currently amended) A first packet-switched network having a first address range, a call server communicatively coupled to the first address range, a

terminal having an address in the first address range and an address translator having a first range address in the first address range, the call server being arranged provide the terminal with the first range address of the address translator as its destination address for a call, to control the address translator and to generate a mapping in the address translator between the address of the terminal in the said first packet-switched network and ~~the a~~ second range address of another network address translator ~~outside the first~~ in a second packet-switched network having a second address range, the second address range overlapping with the first address range, the address translator being arranged to communicate with the other address translator to allow communication with ~~another a second~~ terminal in ~~another the second~~ network, the call server further being arranged to negotiate a port at each respective addresses of the terminals for subsequent communication once a call is set-up, having an IP address range which overlaps with that of the first packet-switched network.

14. (Currently amended) A method of setting up a call between ~~two a first and a~~ second packet-switched network[[s]], the networks having a first and second address ranges respectively, the first address range overlapping with the second address range having overlapping address ranges comprising:-
 - (a) ~~(a)~~—receiving a call setup request from a terminal in a first of the networks, the call being destined for a terminal in the second network,
 - (b) negotiating a port at the address of the terminal for subsequent communication once the call is set-up,
 - (~~c~~[[b]]) providing the terminal in the first network with ~~the a first range~~ address of an address translator in the first network for use as the terminal's destination address, the first range address being in the first address range,
 - (~~d~~[[c]]) notifying the address translator of an address to which data received from the terminal in the first network, should be passed, the address being for an address translator having a second range address in the second address range and being situated in the second network, the

address translator in the second network being adapted to pass data received at the second range address to the second terminal, whereby two-way communication is established between the first and second terminals via the first and second address translators.

15. (Currently amended) Software in a computer readable medium which when executed on suitable hardware in a call server causes the hardware to carry out the steps of:-

(a) receiving a call setup request from a terminal in a first network, the call being destined for a terminal in ~~the~~ a second network, the first network and the second network having a first and second address range respectively, the first address range overlapping with the second address range,

(b) negotiating a port at the address of the terminal for subsequent communication once the call is set-up,

(c[[b]]) providing the terminal in the first network with a first range ~~the~~ address of an address translator in the first network for use as the terminal's destination address, the first range address being in the first address range,

(d[[c]]) notifying the address translator of an address to which data received from the terminal in the first network, should be passed, the address being for an address translator having a second range address in the second address range and being situated in the second network, the address translator in the second network being adapted to pass data received at the second range address to the second terminal,

whereby two-way communication is established between the first and second terminals via the first and second address translators.

16. (Currently amended) A method of translating addresses between terminals in first and second packet-switched networks having ~~overlapping~~ first and second address ranges respectively, the first address range overlapping with the second address range, the method comprising:-

- (a) receiving at an address translator in the first packet-switched network notification from a call server of the address of a terminal in the first packet-switched network which will be sending data, the call server being communicatively coupled to the first address range and the address translator having a first range address in the first address range,
 - (b) receiving notification of an address of a second address translator in the second packet-switched network, the address being a second range address in the second address range and being the address to which data should be sent when received from the terminal in the first packet-switched network,
 - (c) receiving data from the terminal in the first packet-switched network and forwarding the data to the notified destination address
- wherein the first address range overlaps with the second address range.
17. (Currently amended) Software in a computer readable medium which when executed on suitable hardware in an address translator in a first network causes the hardware to carry out the steps of:-
- (a) receiving notification from a call server of the address of a terminal in the first network which will be sending data, the first network having a first address range, the call server being communicatively coupled to the first address range and the address translator having a first range address in the first address range,
 - (b) receiving notification of an address of a second address translator in a second network, to which data should be sent by the first address translator when received from the terminal in the first network, the second network having a second address range which overlaps with the first address range and the address of the second address translator being a second range address in the second address range,
 - (c) receiving data from the terminal in the first network and forwarding the data to the notified destination address of the second address translator, the second address translator being adapted to pass communication sent by the first terminal and received from the first

address translator to a second terminal in the second network having an address in the second address range.